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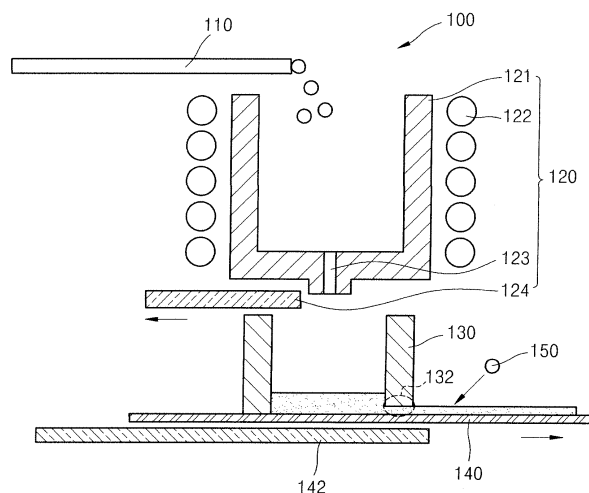
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(54) **Method and apparatus for manufacturing a silicon substrate with excellent surface quality using inert gas blowing**

(57) The present disclosure provides a method and apparatus for manufacturing a silicon substrate using inert gas blowing during continuous casting to provide excellent productivity and surface quality. The apparatus includes a raw silicon feeder through which raw silicon is fed, a silicon melting unit disposed under the raw silicon feeder and melting the raw silicon to form molten silicon, a molten silicon storage unit storing the molten silicon

supplied from the silicon melting unit and tapping the molten silicon to provide a silicon melt having a constant thickness, a transfer unit transferring the silicon melt tapped from the molten silicon storage unit, and a cooling unit cooling the silicon melt transferred by the transfer unit. Here, the cooling unit cools the silicon melt by blowing inert gas at a rate of 0.11~2.5 Nm³/h.

Fig. 1





EUROPEAN SEARCH REPORT

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Y	* column 4, lines 27-30,68; figure 2 * * column 5, line 1 *	7	
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 18 March 2015	Examiner Lemoisson, Fabienne
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82